

What is claimed is:

Sub B3 1. A polyurethane resin composition comprising a polyisocyanate, a polyhydroxy compound and an aromatic polyamine, wherein said polyisocyanate is 4,4'-methylene-bis(cyclohexyl isocyanate) or isophorone diisocyanate.

2. A polyurethane resin composition as claimed in claim 1 wherein said polyhydroxy compound is a polyether diol or a polyester diol having an average molecular weight of 700-1200 or their mixture.

3. A polyurethane resin composition as claimed in claim 1 wherein said aromatic polyamine is 4,4'-methylene-bis(2-chloroaniline).

4. A polyurethane resin composition as claimed in claim 1 wherein said polyisocyanate and said polyhydroxy compound are reacted so that the reaction molar ratio of said polyisocyanate to said polyhydroxy compound (NCO/OH) is 2.5 to 4.0 and the NCO content of a polyurethane prepolymer obtained is 7.0 to 14.0%.

Sub A1 5. An impact-resistant optical lens formed by casting the polyurethane resin composition for casting claimed in

Sub
A1,
cont.

any of claims 1-4.

Sub B5

6. An impact-resistant optical lens as claimed in claim 5 wherein it is a transparent lens, sunglass lens or polarized lens.

7. A method of casting a polyurethane resin comprising the steps of reacting a polyisocyanate with a polyhydroxy compound to obtain a polyurethane prepolymer so that the reaction molar ratio (NCO/OH) will be 2.5 to 4.0, curing the polyurethane prepolymer obtained having an NCO content of 7.0 to 14.0% with an aromatic polyamine so that the reaction molar ratio (NCO/NH₂) will be 1.10 to 0.90, and casting and curing at 60-120 °C.

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